

## OBITUARY.

The Council regret that they have to record the loss by death of the following Fellows and Associates during the past year:—

Fellows :—C. E. Burton.

Rev. J. Challis.

A. Cooper.

W. A. Cross.

H. Dodgson.

Rev. W. H. Drew.

S. Heywood.

R. C. May.

E. H. Pringle.

Rev. T. R. Robinson.

Prof. H. J. S. Smith.

C. V. Walker.

T. Warner.

Major-Gen. W. K. Worster.

Associates :—E. Plantamour.

J. F. K. Zöllner.

CHARLES E. BURTON was the son of the Rev. E. Burton, Rector of Rathmichael, in County Dublin. He graduated at Trinity College, Dublin, and was for some years the assistant to the Earl of Rosse at Parsonstown, where he learned the rudiments of the art of speculum-grinding, in which he afterwards became proficient, some of his specula, silver on glass, of from 6 to 15 inches diameter, being unsurpassed. Their excellence, as well as Mr. Burton's skill in delineating, is shown by the views of *Mars* lately published by the Royal Irish Academy. The observations on which the views were founded were made with 8- and 12-inch specula, which were wholly the work of Mr. Burton's own hands. Very shortly before his death he was engaged in taking photographs of the Moon directly enlarged by means of an eyepiece. For this purpose he employed the  $7\frac{1}{2}$ -inch Equatorial of his friend Dr. Erck, with an inch eyepiece. The diameter of the Moon's disk thus directly enlarged was about 10 inches, and the exposure from 8 to 16 seconds. His experiments in this direction were interrupted by his preparations for the Transit of *Venus* Expedition to the Cape of Good Hope. He died suddenly on July 9, 1882, from heart disease, at the early age of thirty-five. The number of the *Monthly Notices* for last June contains two short papers by him, which are dated June 5 and 6, 1882. He also at one time paid considerable attention to the question of earth currents in telegraph wires, and contributed two papers to the *Philosophical Transactions*, in which observations made on the South Eastern Railway were discussed, and the results compared with the

magnetic changes observed at the Greenwich Observatory. He was elected a Fellow of the Society on May 8, 1874.

JAMES CHALLIS was the fourth son of Mr. John Challis, of Braintree, Essex, where he was born on December 12, 1803. He first went to Braintree school, where, as he used often to say himself, he soon learned all that they could teach him. He then went for a short time to a small school kept in Braintree by the Rev. Daniel Copsey, who was afterwards author of *Essays on Moral and Religious Subjects* (1821), *Studies in Religion* (1826), and other works. Seeing his talent Mr. Copsey, in conjunction with Mr. Matthews, vicar of Coggeshall, sent him to try for a presentation to Mill Hill School, near London, which he succeeded in obtaining by examination. Before proceeding to the University he read for a time with Mr. Matthews.

In October 1821 he entered Trinity College, Cambridge, as a sizar. He was elected a scholar in 1824, and in 1825 he graduated as senior wrangler, being also first Smith's prizeman. The same tripos list contains the name of Sir J. W. Lubbock, whose researches in the Lunar Theory are well known. In the following year Challis was elected Fellow of Trinity, and he resided in the college until he was ordained in 1830, when he was presented to the college living of Papworth Everard, which he held until 1852. He held no college office except during the last two years of his residence, when he took part in the college examinations. The vacations he spent with pupils in the Isle of Wight, Wales, and the English Lakes, once also visiting France. In 1831 he vacated his Fellowship by marriage with the widow of Mr. Daniel Copsey, second daughter of Mr. Samuel Chandler, of Tyringham in Buckinghamshire. He was re-elected Fellow of Trinity in 1870, and was a Fellow at the time of his death.

On February 2, 1836 he was elected Plumian Professor of Astronomy and Experimental Philosophy in the University, in succession to Professor Airy, who had been appointed Astronomer Royal. Mr. Challis was also at the same time made Director of the Cambridge Observatory, where he resided for the next five-and-twenty years, diligently engaged in making and reducing astronomical observations, and where he dispensed, in conjunction with Mrs. Challis, a kindly hospitality that is well remembered by Cambridge men of that time. He resigned the directorship of the Observatory in 1861, when he was succeeded by Professor Adams; but he retained the Plumian Professorship and resided in Cambridge till his death. From 1843 until within the last three or four years he always lectured on Practical Astronomy and the Use of Astronomical Instruments, and when his health became impaired and he was no longer able to lecture himself, he appointed as his deputy Mr. Freeman, late Fellow of St. John's College, who lectured for him on these subjects. Professor Challis was a man of kindly disposition and of simple and courteous manners. His strength gradually